

<110> Lees, Ann M.
Lees, Robert S.
Law, Simon W.
Arjona, Anibal A.

<120> NOVEL LOW DENSITY LIPOPROTEIN BINDING
PROTEINS AND THEIR USE IN DIAGNOSING AND TREATING
ATHEROSCLEROSIS

Met	Ser	Lys	Asn	Thr	Val	Ser	Ser	Ala	Arg	Phe	Arg	Lys	Val	Asp	Val
1				5					10					15	
Asp	Glu	Tyr	Asp	Glu	Asn	Lys	Phe	Val	Asp	Glu	Glu	Asp	Gly	Gly	Asp
			20					25					30		
Gly	Gln	Ala	Gly	Pro	Asp	Glu	Gly	Glu	Val	Asp	Ser	Cys	Leu	Arg	Gln
		35					40					45			
Gly	Asn	Met	Thr	Ala	Ala	Leu	Gln	Ala	Ala	Leu	Lys	Asn	Pro	Pro	Ile
	50					55				60					
Asn	Thr	Arg	Ser	Gln	Ala	Val	Lys	Asp	Arg	Ala	Gly	Ser	Ile	Val	Leu
65				70					75					80	
Lys	Val	Leu	Ile	Ser	Phe	Lys	Ala	Gly	Asp	Ile	Glu	Lys	Ala	Val	Gln
			85					90					95		
Ser	Leu	Asp	Arg	Asn	Gly	Val	Asp	Leu	Leu	Met	Lys	Tyr	Ile	Tyr	Lys
		100					105					110			
Gly	Phe	Glu	Ser	Pro	Ser	Asp	Asn	Ser	Ser	Ala	Val	Leu	Leu	Gln	Trp
	115					120					125				
His	Glu	Lys	Ala	Leu	Ala	Ala	Gly	Gly	Val	Gly	Ser	Ile	Val	Arg	Val
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$$\begin{array}{ll} \langle 210 \rangle & 3 \\ \langle 211 \rangle & 232 \end{array}$$

<213> Oryctolagus cuniculus

[illegible]

<211> 252

<213> Oryctolagus cuniculus

Thr	Arg	Leu	Gly	Ala	Leu	Ala	Leu	Pro	Arg	Gly	Asp	Arg	Pro	Gly	Arg
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Ala	Pro	Pro	Ala	Ala	Ser	Ala	Arg	Ala	Ala	Arg	Asn	Lys	Arg	Ala	Gly
			20					25					30		
Glu	Glu	Arg	Val	Leu	Glu	Lys	Glu	Glu	Glu	Glu	Glu	Glu	Glu	Glu	Asp
		35					40					45			
Asp	Glu	Asp	Asp	Asp	Asp	Asp	Val	Val	Ser	Glu	Gly	Ser	Glu	Val	Pro
	50					55					60				
Glu	Ser	Asp	Arg	Pro	Ala	Gly	Ala	Gln	His	His	Gln	Leu	Asn	Gly	Gly
65				70					75					80	
Glu	Arg	Gly	Pro	Gln	Thr	Ala	Lys	Glu	Arg	Ala	Lys	Glu	Trp	Ser	Leu
			85					90					95		
Cys	Gly	Pro	His	Pro	Gly	Gln	Glu	Glu	Gly	Arg	Gly	Pro	Ala	Ala	Gly
		100						105				110			
Ser	Gly	Thr	Arg	Gln	Val	Phe	Ser	Met	Ala	Ala	Leu	Ser	Lys	Glu	Gly
		115					120				125				

Gly Ser Ala Ser Ser Thr Thr Gly Pro Asp Ser Pro Ser Pro Val Pro
 130 135 140
 Leu Pro Pro Gly Lys Pro Ala Leu Pro Gly Ala Asp Gly Thr Pro Phe
 145 150 155 160
 Gly Cys Pro Ala Gly Arg Lys Glu Lys Pro Ala Asp Pro Val Glu Trp
 165 170 175
 Thr Val Met Asp Val Val Glu Tyr Phe Thr Glu Ala Gly Phe Pro Glu
 180 185 190
 Gln Ala Thr Ala Phe Gln Glu Gln Glu Ile Asp Gly Lys Ser Leu Leu
 195 200 205
 Leu Met Gln Arg Thr Asp Val Leu Thr Gly Leu Ser Ile Arg Leu Gly
 210 215 220
 Pro Ala Leu Lys Ile Tyr Glu His His Ile Lys Val Leu Gln Gln Gly
 225 230 235 240
 His Phe Glu Asp Asp Asp Pro Glu Gly Phe Leu Gly
 245 250

<210> 5

<211> 557

<212> PRT

<213> *Oryctolagus cuniculus*

<400> 5

Met Lys Asn Gln Asp Lys Lys Asn Gly Ala Ala Lys Gln Pro Asn Pro
 1 5 10 15
 Lys Ser Ser Pro Gly Gln Pro Glu Ala Gly Ala Glu Gly Ala Gln Gly
 20 25 30
 Arg Pro Gly Arg Pro Ala Pro Ala Arg Glu Ala Glu Gly Ala Ser Ser
 35 40 45
 Gln Ala Pro Gly Arg Pro Glu Gly Ala Gln Ala Lys Thr Ala Gln Pro
 50 55 60
 Gly Ala Leu Cys Asp Val Ser Glu Glu Leu Ser Arg Gln Leu Glu Asp
 65 70 75 80
 Ile Leu Ser Thr Tyr Cys Val Asp Asn Asn Gln Gly Ala Pro Gly Glu
 85 90 95
 Asp Gly Val Gln Gly Glu Pro Pro Glu Pro Glu Asp Ala Glu Lys Ser
 100 105 110
 Arg Ala Tyr Val Ala Arg Asn Gly Glu Pro Glu Pro Gly Thr Pro Val
 115 120 125
 Val Asn Gly Glu Lys Glu Thr Ser Lys Ala Glu Pro Gly Thr Glu Glu
 130 135 140
 Ile Arg Thr Ser Asp Glu Val Gly Asp Arg Asp His Arg Arg Pro Gln
 145 150 155 160
 Glu Lys Lys Lys Ala Lys Gly Leu Gly Lys Glu Ile Thr Leu Leu Met
 165 170 175
 Gln Thr Leu Asn Thr Leu Ser Thr Pro Glu Glu Lys Leu Ala Ala Leu
 180 185 190
 Cys Lys Lys Tyr Ala Glu Leu Leu Glu Glu His Arg Asn Ser Gln Lys
 195 200 205
 Gln Met Lys Leu Leu Gln Lys Lys Gln Ser Gln Leu Val Gln Glu Lys
 210 215 220
 Asp His Leu Arg Gly Glu His Ser Lys Ala Ile Leu Ala Arg Ser Lys
 225 230 235 240
 Leu Glu Ser Leu Cys Arg Glu Leu Gln Arg His Asn Arg Ser Leu Lys
 245 250 255
 Glu Glu Gly Val Gln Arg Ala Arg Glu Glu Glu Lys Arg Lys Glu
 260 265 270

Val Thr Ser His Phe Gln Met Thr Leu Asn Asp Ile Gln Leu Gln Met
 275 280 285
 Glu Gln His Asn Glu Arg Asn Ser Lys Leu Arg Gln Glu Asn Met Glu
 290 295 300
 Leu Ala Glu Arg Leu Lys Lys Leu Ile Glu Gln Tyr Glu Leu Arg Glu
 305 310 315 320
 Glu His Ile Asp Lys Val Phe Lys His Lys Asp Leu Gln Gln Gln Leu
 325 330 335
 Val Asp Ala Lys Leu Gln Gln Ala Gln Glu Met Leu Lys Glu Ala Glu
 340 345 350
 Glu Arg His Gln Arg Glu Lys Asp Phe Leu Leu Lys Glu Ala Val Glu
 355 360 365
 Ser Gln Arg Met Cys Glu Leu Met Lys Gln Gln Glu Thr His Leu Lys
 370 375 380
 Gln Gln Leu Ala Leu Tyr Thr Glu Lys Phe Glu Glu Phe Gln Asn Thr
 385 390 395 400
 Leu Ser Lys Ser Ser Glu Val Phe Thr Thr Phe Lys Gln Glu Met Glu
 405 410 415
 Lys Met Thr Lys Lys Ile Lys Lys Leu Glu Lys Glu Thr Thr Met Tyr
 420 425 430
 Arg Ser Arg Trp Glu Ser Ser Asn Lys Ala Leu Leu Glu Met Ala Glu
 435 440 445
 Glu Lys Thr Leu Arg Asp Lys Glu Leu Glu Gly Leu Gln Val Lys Ile
 450 455 460
 Gln Arg Leu Glu Lys Leu Cys Arg Ala Leu Gln Thr Glu Arg Asn Asp
 465 470 475 480
 Leu Asn Lys Arg Val Gln Asp Leu Ser Ala Gly Gly Gln Gly Pro Val
 485 490 495
 Ser Asp Ser Gly Pro Glu Arg Arg Pro Glu Pro Ala Thr Thr Ser Lys
 500 505 510
 Glu Gln Gly Val Glu Gly Pro Gly Ala Gln Val Pro Asn Ser Pro Arg
 515 520 525
 Ala Thr Asp Ala Ser Cys Cys Ala Gly Ala Pro Ser Thr Glu Ala Ser
 530 535 540
 Gly Gln Thr Gly Pro Gln Glu Pro Thr Thr Ala Thr Ala
 545 550 555

<210> 6

<211> 151

<212> PRT

<213> Homo sapiens

<400> 6

Met Ser Lys Asn Thr Val Ser Ser Ala Arg Phe Arg Lys Val Asp Val
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 Asp Glu Tyr Asp Glu Asn Lys Phe Val Asp Glu Glu Asp Gly Gly Asp
 20 25 30
 Gly Gln Ala Gly Pro Asp Glu Gly Glu Val Asp Ser Cys Leu Arg Gln
 35 40 45
 Gly Asn Met Thr Ala Ala Leu Gln Ala Ala Leu Lys Asn Pro Pro Ile
 50 55 60
 Asn Thr Lys Ser Gln Ala Val Lys Asp Arg Ala Gly Ser Ile Val Leu
 65 70 75 80
 Lys Val Leu Ile Ser Phe Lys Ala Asn Asp Ile Glu Lys Ala Val Gln
 85 90 95
 Ser Leu Asp Lys Asn Gly Val Asp Leu Leu Met Lys Tyr Ile Tyr Lys
 100 105 110

Gly Phe Glu Ser Pro Ser Asp Asn Ser Ser Ala Met Leu Leu Gln Trp
 115 120 125
 His Glu Lys Ala Leu Ala Ala Gly Gly Val Gly Ser Ile Val Arg Val
 130 135 140
 Leu Thr Ala Arg Lys Thr Val
 145 150

<210> 7
 <211> 217
 <212> PRT
 <213> Homo sapiens

<400> 7
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 Glu Asp Glu Glu Asp Asp Val Ser Glu Gly Ser Glu Val Pro Glu Ser
 20 25 30
 Asp Arg Pro Ala Gly Ala Gln His His Gln Leu Asn Gly Glu Arg Gly
 35 40 45
 Pro Gln Ser Ala Lys Glu Arg Val Lys Glu Trp Thr Pro Cys Gly Pro
 50 55 60
 His Gln Gly Gln Asp Glu Gly Arg Gly Pro Ala Pro Gly Ser Gly Thr
 65 70 75 80
 Arg Gln Val Phe Ser Met Ala Ala Met Asn Lys Glu Gly Gly Thr Ala
 85 90 95
 Ser Val Ala Thr Gly Pro Asp Ser Pro Ser Pro Val Pro Leu Pro Pro
 100 105 110
 Gly Lys Pro Ala Leu Pro Gly Ala Asp Gly Thr Pro Phe Gly Cys Pro
 115 120 125
 Pro Gly Arg Lys Glu Lys Pro Ser Asp Pro Val Glu Trp Thr Val Met
 130 135 140
 Asp Val Val Glu Tyr Phe Thr Glu Ala Gly Phe Pro Glu Gln Ala Thr
 145 150 155 160
 Ala Phe Gln Glu Gln Glu Ile Asp Gly Lys Ser Leu Leu Leu Met Gln
 165 170 175
 Arg Thr Asp Val Leu Thr Gly Leu Ser Ile Arg Leu Gly Pro Ala Leu
 180 185 190
 Lys Ile Tyr Glu His His Ile Lys Val Leu Gln Gln Gly His Phe Glu
 195 200 205
 Asp Asp Asp Pro Asp Gly Phe Leu Gly
 210 215

<210> 8
 <211> 530
 <212> PRT
 <213> Homo sapiens

<400> 8
 Lys Ser Ser Pro Gly Gln Pro Glu Ala Gly Pro Glu Gly Ala Gln Glu
 1 5 10 15
 Arg Pro Ser Gln Ala Ala Pro Ala Val Glu Ala Glu Gly Pro Gly Ser
 20 25 30
 Ser Gln Ala Pro Arg Lys Pro Glu Gly Ala Gln Ala Arg Thr Ala Gln
 35 40 45
 Ser Gly Ala Leu Arg Asp Val Ser Glu Glu Leu Ser Arg Gln Leu Glu
 50 55 60
 Asp Ile Leu Ser Thr Tyr Cys Val Asp Asn Asn Gln Gly Gly Pro Gly

65		70		75		80
Glu Asp Gly Ala Gln Gly Glu Pro Ala Glu Pro Glu Asp Ala Glu Lys						
	85		90		95	
Ser Arg Thr Tyr Val Ala Arg Asn Gly Glu Pro Glu Pro Thr Pro Val						
	100		105		110	
Val Tyr Gly Glu Lys Glu Pro Ser Lys Gly Asp Pro Asn Thr Glu Glu						
	115		120		125	
Ile Arg Gln Ser Asp Glu Val Gly Asp Arg Asp His Arg Arg Pro Gln						
	130		135		140	
Glu Lys Lys Lys Ala Lys Gly Leu Gly Lys Glu Ile Thr Leu Leu Met						
	145		150		155	
Gln Thr Leu Asn Thr Leu Ser Thr Pro Glu Glu Lys Leu Ala Ala Leu						
	165		170		175	
Cys Lys Lys Tyr Ala Glu Leu Leu Glu Glu His Arg Asn Ser Gln Lys						
	180		185		190	
Gln Met Lys Leu Leu Gln Lys Lys Gln Ser Gln Leu Val Gln Glu Lys						
	195		200		205	
Asp His Leu Arg Gly Glu His Ser Lys Ala Val Leu Ala Arg Ser Lys						
	210		215		220	
Leu Glu Ser Leu Cys Arg Glu Leu Gln Arg His Asn Arg Ser Leu Lys						
	225		230		235	
Glu Glu Gly Val Gln Arg Ala Arg Glu Glu Glu Glu Lys Arg Lys Glu						
	245		250		255	
Val Thr Ser His Phe Gln Val Thr Leu Asn Asp Ile Gln Leu Gln Met						
	260		265		270	
Glu Gln His Asn Glu Arg Asn Ser Lys Leu Arg Gln Glu Asn Met Glu						
	275		280		285	
Leu Ala Glu Arg Leu Lys Lys Leu Ile Glu Gln Tyr Glu Leu Arg Glu						
	290		295		300	
Glu His Ile Asp Lys Val Phe Lys His Lys Asp Leu Gln Gln Gln Leu						
	305		310		315	
Val Asp Ala Lys Leu Gln Gln Ala Gln Glu Met Leu Lys Glu Ala Glu						
	325		330		335	
Glu Arg His Gln Arg Glu Lys Asp Phe Leu Leu Lys Glu Ala Val Glu						
	340		345		350	
Ser Gln Arg Met Cys Glu Leu Met Lys Gln Gln Glu Thr His Leu Lys						
	355		360		365	
Gln Gln Leu Ala Leu Tyr Thr Glu Lys Phe Glu Glu Phe Gln Asn Thr						
	370		375		380	
Leu Ser Lys Ser Ser Glu Val Phe Thr Thr Phe Lys Gln Glu Met Glu						
	385		390		395	
Lys Met Thr Lys Lys Ile Lys Lys Leu Glu Lys Glu Thr Thr Met Tyr						
	405		410		415	
Arg Ser Arg Trp Glu Ser Ser Asn Lys Ala Leu Leu Glu Met Ala Glu						
	420		425		430	
Glu Lys Thr Val Arg Asp Lys Glu Leu Glu Gly Leu Gln Val Lys Ile						
	435		440		445	
Gln Arg Leu Glu Lys Leu Cys Arg Ala Leu Gln Thr Glu Arg Asn Asp						
	450		455		460	
Leu Asn Lys Arg Val Gln Asp Leu Ser Ala Gly Gly Gln Gly Ser Leu						
	465		470		475	
Thr Asp Ser Gly Pro Glu Arg Arg Pro Glu Gly Pro Gly Ala Gln Ala						
	485		490		495	
Pro Ser Ser Pro Arg Val Thr Glu Ala Pro Cys Tyr Pro Gly Ala Pro						
	500		505		510	
Ser Thr Glu Ala Ser Gly Gln Thr Gly Pro Gln Glu Pro Thr Ser Ala						
	515		520		525	

100333 400

ttc qaq aqc ccc tcc qac aac agc agc gcc gtg ctc ctg cag tgg cac 444

Phe Glu Ser Pro Ser Asp Asn Ser Ser Ala Val Leu Leu Gln Trp His
 115 120 125

gag aag gcg ctg gct gca gga gga gtg ggc tcc atc gtc cgt gtc ctg 492
 Glu Lys Ala Leu Ala Ala Gly Gly Val Gly Ser Ile Val Arg Val Leu
 130 135 140 145

act gca agg aaa acc gtg tagcctggca ggaacgggtg cctgccgggg 540
 Thr Ala Arg Lys Thr Val
 150

agcgggagct gccggtacaa agacccaaac gccagatgc cgcgctgcc ctgtgggagg 600
 cgtctgttcc cagcttcgct ttttcccttt cccgtgtctg tcaggattac ataaggtttc 660
 ccttcgtgag aatcggagtg gcgcagaggg tcctgttcat acgcgcgctg cgtccggctg 720
 tgtaagaccc ctgccttcag tgtccttgag caacggtagc gtgtcgccgg ctgggttttg 780
 ttttgctgtg gagggatctg gtcagaattt gaggccagtt tcctaactca ttgctgggtca 840
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 gagcacactg gttctcagaa cacggccggc gcttgacggt tgtcacagct ccagaacaaa 1260
 tcctgggaga caggcgagcg cgagtcgccg ggcaggaatt ccacacactc gtgctgtttt 1320
 tgatacctgc tttttgtttt gttttgtaaa aatgatgcac ttgagaaaat aaaacgtcag 1380
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<210> 11

<211> 1617

<212> DNA

<213> *Oryctolagus cuniculus*

<220>

<221> CDS

<222> (1)...(951)

<400> 11

gac tgc cgc agc agc agc aac aac cgc tag ccg aag ggt ggc gcg gcg 48
 Asp Cys Arg Ser Ser Ser Asn Asn Arg * Pro Lys Gly Gly Ala Ala
 1 5 10 15

cgg gcc ggc ggc ccg gcg cgg ccc gtg agc ctg cgg gaa gtc gtg cgc 96
 Arg Ala Gly Gly Pro Ala Arg Pro Val Ser Leu Arg Glu Val Val Arg
 20 25 30

tac ctc ggg ggt agc agc ggc gct ggc ggc cgc ctg acc cgc ggc cgc 144
 Tyr Leu Gly Gly Ser Ser Gly Ala Gly Gly Arg Leu Thr Arg Gly Arg
 35 40 45

gtg cag ggt ctg ctg gaa gag gag gcg gcg gcg cgg ggc cgc ctg gag 192
 Val Gln Gly Leu Leu Glu Glu Glu Ala Ala Ala Arg Gly Arg Leu Glu
 50 55 60

cgc acc cgt ctc gga gcg ctt gcg ctg ccc cgc ggg gac agg ccc gga 240
 Arg Thr Arg Leu Gly Ala Leu Ala Leu Pro Arg Gly Asp Arg Pro Gly
 65 70 75

cgg	gcg	cca	ccg	gcc	gcc	agc	gcc	cgc	gcg	gcg	cgg	aac	aag	aga	gct	288
Arg	Ala	Pro	Pro	Ala	Ala	Ser	Ala	Arg	Ala	Ala	Arg	Asn	Lys	Arg	Ala	
80					85				90						95	
ggc	gag	gag	cga	gtg	ctt	gaa	aag	gag	gag	gag	gag	gag	gag	gag	gaa	336
Gly	Glu	Glu	Arg	Val	Leu	Glu	Lys	Glu	Glu	Glu	Glu	Glu	Glu	Glu	Glu	
				100				105						110		
gac	gac	gag	gac	gac	gac	gac	gac	gtc	gtg	tcc	gag	ggc	tcg	gag	gtg	384
Asp	Asp	Glu	Asp	Asp	Asp	Asp	Asp	Val	Val	Ser	Glu	Gly	Ser	Glu	Val	
			115					120					125			
ccc	gag	agc	gat	cgt	ccc	gcg	ggg	gcg	cag	cat	cac	cag	ctg	aat	ggc	432
Pro	Glu	Ser	Asp	Arg	Pro	Ala	Gly	Ala	Gln	His	His	Gln	Leu	Asn	Gly	
		130					135					140				
ggc	gag	cgc	ggc	ccg	cag	acc	gcc	aag	gag	cgg	gcc	aag	gag	tgg	tcg	480
Gly	Glu	Arg	Gly	Pro	Gln	Thr	Ala	Lys	Glu	Arg	Ala	Lys	Glu	Trp	Ser	
	145					150					155					
ctg	tgt	ggc	ccc	cac	cct	ggc	cag	gag	gaa	ggg	cgg	ggg	ccg	gcc	gcg	528
Leu	Cys	Gly	Pro	His	Pro	Gly	Gln	Glu	Glu	Gly	Arg	Gly	Pro	Ala	Ala	
160					165					170					175	
ggc	agt	ggc	acc	cgc	cag	gtg	ttc	tcc	atg	gcg	gcc	ttg	agt	aag	gag	576
Gly	Ser	Gly	Thr	Arg	Gln	Val	Phe	Ser	Met	Ala	Ala	Leu	Ser	Lys	Glu	
				180					185					190		
ggg	gga	tca	gcc	tct	tcg	acc	acc	ggg	cct	gac	tcc	ccg	tcc	ccg	gtg	624
Gly	Gly	Ser	Ala	Ser	Ser	Thr	Thr	Gly	Pro	Asp	Ser	Pro	Ser	Pro	Val	
			195					200					205			
cct	ttg	ccc	ccc	ggg	aag	cca	gcc	ctc	cca	gga	gcc	gat	ggg	acc	ccc	672
Pro	Leu	Pro	Pro	Gly	Lys	Pro	Ala	Leu	Pro	Gly	Ala	Asp	Gly	Thr	Pro	
		210					215					220				
ttt	ggc	tgc	cct	gcc	ggg	cgc	aaa	gag	aag	ccg	gca	gac	ccc	gtg	gag	720
Phe	Gly	Cys	Pro	Ala	Gly	Arg	Lys	Glu	Lys	Pro	Ala	Asp	Pro	Val	Glu	
	225					230					235					
tgg	aca	gtc	atg	gac	gtc	gtg	gag	tac	ttc	acc	gag	gcg	ggc	ttc	cct	768
Trp	Thr	Val	Met	Asp	Val	Val	Glu	Tyr	Phe	Thr	Glu	Ala	Gly	Phe	Pro	
240					245					250					255	
gag	caa	gcc	acg	gct	ttc	cag	gag	cag	gag	atc	gac	ggc	aag	tcc	ctg	816
Glu	Gln	Ala	Thr	Ala	Phe	Gln	Glu	Gln	Glu	Ile	Asp	Gly	Lys	Ser	Leu	
				260					265					270		
ctg	ctc	atg	cag	cgc	acc	gat	gtc	ctc	acc	ggc	ctg	tcc	atc	cgc	ctg	864
Leu	Leu	Met	Gln	Arg	Thr	Asp	Val	Leu	Thr	Gly	Leu	Ser	Ile	Arg	Leu	
			275					280					285			
ggg	cca	gcg	ttg	aaa	atc	tat	gag	cac								

gcgcgccgcgc	cccttggtccc	cacccccacc	cgcgctggac	ccatttcctgc	ctccatgtca	1021
cccaaggtgt	cccagaggcc	aggagctgga	ctgggcaggc	gaggggtgcg	gacctacctt	1081
gattctggta	gggggcgggg	ccttgctgtg	ctcattgcta	ccccccacc	ccgtgtgtgt	1141
ctctgcacct	gccccagca	cacccctccc	ggagcctgga	tgtgcgctgg	gactctggcc	1201
tgctcatttt	gccccagat	cagccccctc	cctccctcct	gtcccaggac	atTTTTTaaa	1261
agaaaaaaaaag	gaaaaaaaaa	aattggggag	ggggctggga	aggtgcccc	agatcctcct	1321
cggcccaacc	aggtgtttat	tcctatatat	atatatatat	gttttgttct	gcctgttttt	1381
cgTTTTTTtg	tgcgtggcct	ttcttccctc	ccaccaccac	tcatggcccc	agcctctctc	1441
gccctgtcgg	cgggagcagc	tgggaatggg	aggagggtgg	gaccttgggt	ctgtctccca	1501
ccctctctcc	cgttggttct	gttgctgctc	cagctggctg	tattgctttt	taatatgca	1561
cqaaagqggt	gttttttttt	ttttaataaa	aatttttaaaa	aaaqgaaaaa	aaaaaa	1617

<211> 1362

<212> DNA

<213> Oryctolagus cuniculus

<220>

<221> CDS

<222> (1) ... (696)

<400> 12

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1 5 10 15

ctt gaa aag gag gag gag gag gag gag gag gaa gac gac gag gac gac 96
 Leu Glu Lys Glu Glu Glu Glu Glu Glu Glu Glu Asp Asp Glu Asp Asp
 20 25 30

gac gac gac gtc gtg tcc gag ggc tcg gag gtg ccc gag agc gat cgt 144
Asp Asp Asp Val Val Ser Glu Gly Ser Glu Val Pro Glu Ser Asp Arg
35 40 45

ccc gcg ggt gcg cag cat cac cag ctg aat ggc ggc gag cgc ggc ccg 192
Pro Ala Gly Ala Gln His His Gln Leu Asn Gly Gly Glu Arg Gly Pro
50 55 60

cag acc gcc aag gag cgg gcc aag gag tgg tcg ctg tgt ggc ccc cac 240
Gln Thr Ala Lys Glu Arg Ala Lys Glu Trp Ser Leu Cys Gly Pro His
65 70 75 80

cct ggc cag gag gaa ggg cgg ggg ccg gcc gcg ggc agt ggc acc cgc 288
Pro Gly Gln Glu Glu Gly Arg Gly Pro Ala Ala Gly Ser Gly Thr Arg
85 90 95

cag gtg ttc tcc atg gcg gcc ttg agt aag gag ggg gga tca gcc tct 336
Gln Val Phe Ser Met Ala Ala Leu Ser Lys Glu Gly Gly Ser Ala Ser
100 105 110

tcg acc acc ggg cct gac tcc ccg tcc ccg gtg cct ttg ccc ccc ggg 384
Ser Thr Thr Gly Pro Asp Ser Pro Ser Pro Val Pro Leu Pro Pro Gly
115 120 125

aag cca gcc ctc cca gga gcc gat ggg acc ccc ttt ggc tgc cct gcc 432
 Lys Pro Ala Leu Pro Gly Ala Asp Gly Thr Pro Phe Gly Cys Pro Ala
 130 135 140

ggg cgc aaa gag aag ccg gca gac ccc gtg gag tgg aca gtc atg gac 480
 Gly Arg Lys Glu Lys Pro Ala Asp Pro Val Glu Trp Thr Val Met Asp
 145 150 155 160

gtc gtg gag tac ttc acc gag gcg ggc ttc cct gag caa gcc acg gct 528
 Val Val Glu Tyr Phe Thr Glu Ala Gly Phe Pro Glu Gln Ala Thr Ala
 165 170 175

ttc cag gag cag gag atc gac ggc aag tcc ctg ctg ctc atg cag cgc 576
 Phe Gln Glu Gln Glu Ile Asp Gly Lys Ser Leu Leu Leu Met Gln Arg
 180 185 190

acc gat gtc ctc acc ggc ctg tcc atc cgc ctg ggg cca gcg ttg aaa 624
 Thr Asp Val Leu Thr Gly Leu Ser Ile Arg Leu Gly Pro Ala Leu Lys
 195 200 205

atc tat gag cac cat atc aag gtg ctg cag cag ggt cac ttc gag gac 672
 Ile Tyr Glu His His Ile Lys Val Leu Gln Gln Gly His Phe Glu Asp
 210 215 220

gat gac ccg gaa ggc ttc ctg gga tgagcacaga gccgccgcgc cccttgcccc 726
 Asp Asp Pro Glu Gly Phe Leu Gly
 225 230

cacccccacc ccgcctggac ccattcctgc ctccatgtca cccaaggtgt cccagaggcc 786
 aggagctgga ctgggcaggc gaggggtgcg gacctacct gattctggta gggggcgggg 846
 ccttgctgtg ctcatgtcta ccccccaacc ccgtgtgtgt ctctgcacct gccccagca 906
 caccctccc ggagcctgga tgcgcctgg gactctggcc tgcctatttt gccccagat 966
 cagccccctc cctccctcct gtcccaggac attttttaaa agaaaaaaag gaaaaaaaaa 1026
 aattggggag ggggctggga aggtgcccc agatcctcct cgcccccaacc aggtgtttat 1086
 tcctatatat atatatatat gttttgttct gcctgttttt cgtttttttg tgcgtggcct 1146
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 tgggaatggg aggaggtgg gaccttgggt ctgtctccca cctctctctc cgttggttct 1266
 gttgtcgtc cagctggctg tattgtttt taatattgca ccgaaggggt gttttttttt 1326
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<210> 13

<211> 1422

<212> DNA

<213> *Oryctolagus cuniculus*

<220>

<221> CDS

<222> (1)...(756)

<400> 13

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 Ala Pro Pro Ala Ala Ser Ala Arg Ala Ala Arg Asn Lys Arg Ala Gly
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Glu	Glu	Arg	Val	Leu	Glu	Lys	Glu	Glu	Glu	Glu	Glu	Glu	Glu	Glu	Asp	
35						40						45				
gac	gag	gac	gac	gac	gac	gac	gtc	gtg	tcc	gag	ggc	tcg	gag	gtg	ccc	192
Asp	Glu	Asp	Asp	Asp	Asp	Asp	Val	Val	Ser	Glu	Gly	Ser	Glu	Val	Pro	
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gag	agc	gat	cgt	ccc	gcg	ggt	gcg	cag	cat	cac	cag	ctg	aat	ggc	ggc	240
Glu	Ser	Asp	Arg	Pro	Ala	Gly	Ala	Gln	His	His	Gln	Leu	Asn	Gly	Gly	
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gag	cgc	ggc	ccg	cag	acc	gcc	aag	gag	cgg	gcc	aag	gag	tgg	tcg	ctg	288
Glu	Arg	Gly	Pro	Gln	Thr	Ala	Lys	Glu	Arg	Ala	Lys	Glu	Trp	Ser	Leu	
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tgt	ggc	ccc	cac	cct	ggc	cag	gag	gaa	ggg	cgg	ggg	ccg	gcc	gcg	ggc	336
Cys	Gly	Pro	His	Pro	Gly	Gln	Glu	Glu	Gly	Arg	Gly	Pro	Ala	Ala	Gly	
			100						105						110	
agt	ggc	acc	cgc	cag	gtg	ttc	tcc	atg	gcg	gcc	ttg	agt	aag	gag	ggg	384
Ser	Gly	Thr	Arg	Gln	Val	Phe	Ser	Met	Ala	Ala	Leu	Ser	Lys	Glu	Gly	
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Gly	Ser	Ala	Ser	Ser	Thr	Thr	Gly	Pro	Asp	Ser	Pro	Ser	Pro	Val	Pro	
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Gln	Ala	Thr	Ala	Phe	Gln	Glu	Gln	Glu	Ile	Asp	Gly	Lys	Ser	Leu	Leu	
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ctc	atg	cag	cgc	acc	gat	gtc	ctc	acc	ggc	ctg	tcc	atc	cgc	ctg	ggg	672
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Pro	Ala	Leu	Lys	Ile	Tyr	Glu	His	His	Ile	Lys	Val	Leu	Gln	Gln	Gly	
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cac	ttc	gag	gac	gat	gac	ccg	gaa	ggc	ttc	ctg	gga	tgagcacaga				766
His	Phe	Glu	Asp	Asp	Asp	Pro	Glu	Gly	Phe	Leu	Gly					

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<222> (61)...(1731)

<400> 14

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Met Lys Asn Gln Asp Lys Lys Asn Gly Ala Ala Lys Gln Pro Asn Pro
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Lys Ser Ser Pro Gly Gln Pro Glu Ala Gly Ala Glu Gly Ala Gln Gly
      20             25             30

cgg ccc ggc cgg ccg gcc ccc gcc cga gaa gcc gaa ggt gcc agc agc 204
Arg Pro Gly Arg Pro Ala Pro Ala Arg Glu Ala Glu Gly Ala Ser Ser
      35             40             45

cag gct ccc ggg agg ccg gag ggg gct caa gcc aaa act gct cag cct 252
Gln Ala Pro Gly Arg Pro Glu Gly Ala Gln Ala Lys Thr Ala Gln Pro
      50             55             60

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Gly Ala Leu Cys Asp Val Ser Glu Glu Leu Ser Arg Gln Leu Glu Asp
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ata ctc agt aca tac tgt gtg gac aac aac cag ggg gcc ccg ggt gag 348
Ile Leu Ser Thr Tyr Cys Val Asp Asn Asn Gln Gly Ala Pro Gly Glu
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gat ggg gtc cag ggt gag ccc cct gaa cct gaa gat gca gag aag tct 396
Asp Gly Val Gln Gly Glu Pro Pro Glu Pro Glu Asp Ala Glu Lys Ser
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cgc gcc tat gtg gca agg aat ggg gag ccg gag ccg ggc acc cca gta 444
Arg Ala Tyr Val Ala Arg Asn Gly Glu Pro Glu Pro Gly Thr Pro Val
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Val Asn Gly Glu Lys Glu Thr Ser Lys Ala Glu Pro Gly Thr Glu Glu

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Glu Lys Lys Lys Ala	Lys Gly Leu Gly Lys	Glu Ile Thr Leu Leu	Met
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Gln Thr Leu Asn Thr	Leu Ser Thr Pro Glu	Glu Lys Leu Ala Ala	Leu
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Cys Lys Lys Tyr Ala	Glu Leu Leu Glu Glu	His Arg Asn Ser Gln	Lys
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Gln Met Lys Leu Leu	Gln Lys Lys Gln Ser	Gln Leu Val Gln Glu	Lys
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ctc gag agc ctg tgc	cgg gag ctg cag cgg	cac aac cgc tcg ctc	aag 828
Leu Glu Ser Leu Cys	Arg Glu Leu Gln Arg	His Asn Arg Ser Leu	Lys
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Glu Glu Gly Val Gln	Arg Ala Arg Glu Glu	Glu Glu Lys Arg Lys	Glu
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Val Thr Ser His Phe	Gln Met Thr Leu Asn	Asp Ile Gln Leu Gln	Met
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gag cag cac aac gag	cgc aac tcc aag ctg	cgc cag gag aac atg	gag 972
Glu Gln His Asn Glu	Arg Asn Ser Lys Leu	Arg Gln Glu Asn Met	Glu
290	295	300	
ctg gcc gag cgg ctc	aag aag ctg att gag	cag tac gag ctg cga	gaa 1020
Leu Ala Glu Arg Leu	Lys Lys Leu Ile Glu	Gln Tyr Glu Leu Arg	Glu
305	310	315	320
gag cac atc gac aaa	gtc ttc aaa cac aag	gat ctg cag cag cag	ctg 1068
Glu His Ile Asp Lys	Val Phe Lys His Lys	Asp Leu Gln Gln Gln	Leu
325	330	335	
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Val Asp Ala Lys Leu	Gln Gln Ala Gln Glu	Met Leu Lys Glu Ala	Glu
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Glu Arg His Gln Arg	Glu Lys Asp Phe Leu	Leu Leu Lys Glu Ala	Val
355	360	365	

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<213> Homo sapiens

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Met

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Glu Tyr Asp Glu Asn Lys Phe Val Asp Glu Glu Asp Gly Gly Asp Gly	
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cag gcc ggg ccc gac gag ggc gag gtg gac tcc tgc ctg cgg caa gga	264
Gln Ala Gly Pro Asp Glu Gly Glu Val Asp Ser Cys Leu Arg Gln Gly	
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aac atg aca gct gcc cta cag gca gct ctg aag aac ccc cct atc aac	312
Asn Met Thr Ala Ala Leu Gln Ala Ala Leu Lys Asn Pro Pro Ile Asn	
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Thr Lys Ser Gln Ala Val Lys Asp Arg Ala Gly Ser Ile Val Leu Lys	
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Leu Asp Lys Asn Gly Val Asp Leu Leu Met Lys Tyr Ile Tyr Lys Gly	
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Phe Glu Ser Pro Ser Asp Asn Ser Ser Ala Met Leu Leu Gln Trp His	
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Thr Ala Arg Lys Thr Val	
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 Pro Gln Ser Ala Lys Glu Arg Val Lys Glu Trp Thr Pro Cys Gly Pro
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 His Gln Gly Gln Asp Glu Gly Arg Gly Pro Ala Pro Gly Ser Gly Thr
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 Arg Gln Val Phe Ser Met Ala Ala Met Asn Lys Glu Gly Gly Thr Ala
 85 90 95

tct gtt gcc acc ggg cca gac tcc ccg tcc ccc gtg cct ttg ccc cca 336
 Ser Val Ala Thr Gly Pro Asp Ser Pro Ser Pro Val Pro Leu Pro Pro
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 Gly Lys Pro Ala Leu Pro Gly Ala Asp Gly Thr Pro Phe Gly Cys Pro
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 Pro Gly Arg Lys Glu Lys Pro Ser Asp Pro Val Glu Trp Thr Val Met
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 Asp Val Val Glu Tyr Phe Thr Glu Ala Gly Phe Pro Glu Gln Ala Thr
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Ala Phe Gln Glu Gln Glu Ile Asp Gly Lys Ser Leu Leu Leu Met Gln	
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cgc aca gat gtg ctc acc ggc ctg tcc atc cgc ctc ggg cca gcc ctg	576
Arg Thr Asp Val Leu Thr Gly Leu Ser Ile Arg Leu Gly Pro Ala Leu	
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Lys Ile Tyr Glu His His Ile Lys Val Leu Gln Gln Gly His Phe Glu	
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Asp Asp Asp Pro Asp Gly Phe Leu Gly	
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Ser Ser Gln Ala Pro Arg Lys Pro Glu Gly Ala Gln Ala Arg Thr Ala	
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Gln Ser Gly Ala Leu Arg Asp Val Ser Glu Glu Leu Ser Arg Gln Leu	
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gaa gac ata ctg agc aca tac tgt gtg gac aat aac cag ggg ggc ccc	239
Glu Asp Ile Leu Ser Thr Tyr Cys Val Asp Asn Asn Gln Gly Gly Pro	
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Lys Ser Arg Thr Tyr Val Ala Arg Asn Gly Glu Pro Glu Pro Thr Pro	
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Val Val Tyr Gly Glu Lys Glu Pro Ser Lys Gly Asp Pro Asn Thr Glu	
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Glu Ile Arg Gln Ser Asp Glu Val Gly Asp Arg Asp His Arg Arg Pro	
130 135 140	
cag gag aag aaa aaa gcc aag ggt ttg ggg aag gag atc acg ttg ctg	479
Gln Glu Lys Lys Lys Ala Lys Gly Leu Gly Lys Glu Ile Thr Leu Leu	
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Leu Cys Lys Lys Tyr Ala Glu Leu Leu Glu Glu His Arg Asn Ser Gln	
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Lys Asp His Leu Arg Gly Glu His Ser Lys Ala Val Leu Ala Arg Ser	
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Lys Glu Glu Gly Val Gln Arg Ala Arg Glu Glu Glu Glu Lys Arg Lys	
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Met Glu Gln His Asn Glu Arg Asn Ser Lys Leu Arg Gln Glu Asn Met	
275 280 285	
gag ctg gct gag agg ctc aag aag ctg att gag cag tat gag ctg cgc	911
Glu Leu Ala Glu Arg Leu Lys Lys Leu Ile Glu Gln Tyr Glu Leu Arg	
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gag gag cat atc gac aaa gtc ttc aaa cac aag gac cta caa cag cag	959

Glu Glu His Ile Asp Lys Val Phe Lys His Lys Asp Leu Gln Gln Gln
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530

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<212> PRT

<213> Oryctolagus cuniculus

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<211> 28

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<213> Oryctolagus cuniculus

<400> 26

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<211> 12

<212> PRT

<213> Oryctolagus cuniculus

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<400> 28

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84

36

30

45

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Glu	Trp	Ile	Leu	Asp	Thr	Ile	Asp	Ser	Leu	Arg	Ser	Arg	Lys	Ala	Arg	
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Ser	Pro	Gly	Pro	Ala	Gln	Pro	Gly	Pro	Arg	Ala	Gln	Arg	Ala	Ala	Pro	
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Leu	Ala	Ala	Pro	Pro	Pro	Ala	Pro	Ala	Ala	Pro	Pro	Ala	Val	Ala	Pro	
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Arg	Ala	Gly	Gly	Ala	Ala	Arg	Pro	Val	Ser	Leu	Arg	Glu	Val	Val	Arg	
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Tyr	Leu	Gly	Gly	Ser	Gly	Gly	Ala	Gly	Gly	Arg	Leu	Thr	Arg	Gly	Arg	
			260					265					270			
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		275					280				285					
Arg	Thr	Arg	Leu	Gly	Ala	Leu	Ala	Leu	Pro	Arg	Gly	Asp	Arg	Pro	Gly	
	290					295					300					
Arg	Ala	Pro	Pro	Ala	Ala	Ser	Ala	Arg	Pro	Ser	Arg	Ser	Lys	Arg	Gly	
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Gly	Glu	Glu	Arg	Val	Leu	Glu	Lys	Glu	Glu	Glu	Glu	Asp	Asp	Asp	Glu	
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 405 410 415
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 420 425 430
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 435 440 445
 Pro Pro Gly Arg Lys Glu Lys Pro Ser Asp Pro Val Glu Trp Thr Val
 450 455 460
 Met Asp Val Val Glu Tyr Phe Thr Glu Ala Gly Phe Pro Glu Gln Ala
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<213> Homo sapiens

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 35 40 45
 Ser Gln Ala Pro Arg Lys Pro Glu Gly Ala Gln Ala Arg Thr Ala Gln
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 Ser Gly Ala Leu Arg Asp Val Ser Glu Glu Leu Ser Arg Gln Leu Glu
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 85 90 95
 Glu Asp Gly Ala Gln Gly Glu Pro Ala Glu Pro Glu Asp Ala Glu Lys
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 Ser Arg Thr Tyr Val Ala Arg Asn Gly Glu Pro Glu Pro Thr Pro Val
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 130 135 140
 Ile Arg Gln Ser Asp Glu Val Gly Asp Arg Asp His Arg Arg Pro Gln
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 195 200 205
 Gln Met Lys Leu Leu Gln Lys Lys Gln Ser Gln Leu Val Gln Glu Lys
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245 250 255
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 Glu His Ile Asp Lys Val Phe Lys His Lys Asp Leu Gln Gln Gln Leu
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 340 345 350
 Glu Arg His Gln Arg Glu Lys Asp Phe Leu Leu Lys Glu Ala Val Glu
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 370 375 380
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 Arg Ser Arg Trp Glu Ser Ser Asn Lys Ala Leu Leu Glu Met Ala Glu
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 Glu Lys Thr Val Arg Asp Lys Glu Leu Glu Gly Leu Gln Val Lys Ile
 450 455 460
 Gln Arg Leu Glu Lys Leu Cys Arg Ala Leu Gln Thr Glu Arg Asn Asp
 465 470 475 480
 Leu Asn Lys Arg Val Gln Asp Leu Ser Ala Gly Gly Gln Gly Ser Leu
 485 490 495
 Thr Asp Ser Gly Pro Glu Arg Arg Pro Glu Gly Pro Gly Ala Gln Ala
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 Arg Ala
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<211> 1614

<212> DNA

<213> Homo sapiens

<220>

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<222> (1)...(1614)

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48

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 Thr Thr Ala Ala Ala Ser Ser Ser Ala Ala Ser Pro His Tyr Gln
 20 25 30

96

gag tgg atc ctg gac acc atc gac tcg ctg cgc tcg cgc aag gcg cgg 144
 Glu Trp Ile Leu Asp Thr Ile Asp Ser Leu Arg Ser Arg Lys Ala Arg
 35 40 45

ccg gac ctg gag cgc atc tgc cgg atg gtg cgg cgg cgg cac ggc ccg 192
 Pro Asp Leu Glu Arg Ile Cys Arg Met Val Arg Arg Arg His Gly Pro
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gag ccg gag cgc acg cgc gcc gag ctc gag aaa ctg atc cag cag cgc 240
 Glu Pro Glu Arg Thr Arg Ala Glu Leu Glu Lys Leu Ile Gln Gln Arg
 65 70 75 80

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 Ala Val Leu Arg Val Ser Tyr Lys Gly Ser Ile Ser Tyr Arg Asn Ala
 85 90 95

gcg cgc gtc cag ccg ccc cgg cgc gga gcc acc ccg ccg gcc ccg ccg 336
 Ala Arg Val Gln Pro Pro Arg Arg Gly Ala Thr Pro Pro Ala Pro Pro
 100 105 110

cgc gcc ccc cgc ggg gcc ccc gcc gcc gcc gcc gcc gcc gcg ccg ccg 384
 Arg Ala Pro Arg Gly Ala Pro Ala Ala Ala Ala Ala Ala Pro Pro
 115 120 125

ccc acg ccc gcc ccg ccg cca ccg ccc gcg ccc gtc gcc gcc gcc gcc 432
 Pro Thr Pro Ala Pro Pro Pro Pro Pro Ala Pro Val Ala Ala Ala Ala
 130 135 140

ccg gcc cgg gcg ccc cgc gcg gcc gcc gcc gcc gcc gcc aca gcg ccc ccc 480
 Pro Ala Arg Ala Pro Arg Ala Ala Ala Ala Ala Ala Thr Ala Pro Pro
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tcg cct ggc ccc gcg cag ccg ggc ccc cgc gcg cag ccg gcc gcg ccc 528
 Ser Pro Gly Pro Ala Gln Pro Gly Pro Arg Ala Gln Arg Ala Ala Pro
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ctg gcc gcg ccg ccg ccc gcg cca gcc gct ccc ccg gcg gtg gcg ccc 576
 Leu Ala Ala Pro Pro Pro Ala Pro Ala Ala Pro Pro Ala Val Ala Pro
 180 185 190

ccg gcc ggc ccg cgc cgc gcc ccc ccg ccc gcc gtc gcc gcc ccg gag 624
 Pro Ala Gly Pro Arg Arg Ala Pro Pro Pro Ala Val Ala Ala Arg Glu
 195 200 205

ccg ccg ctg ccg ccg ccg cca cag ccg ccg gcg ccg cca cag cag cag 672
 Pro Pro Leu Pro Pro Pro Pro Gln Pro Pro Ala Pro Pro Gln Gln Gln
 210 215 220

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 Gln Pro Pro Pro Pro Gln Pro Gln Pro Pro Pro Glu Gly Gly Ala Val
 225 230 235 240

cgg gcc ggc ggc gcg gcg cgg ccc gtg agc ctg ccg gaa gtc gtg cgc 768
 Arg Ala Gly Gly Ala Ala Arg Pro Val Ser Leu Arg Glu Val Val Arg
 245 250 255

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Tyr	Leu	Gly	Gly	Ser	Gly	Gly	Ala	Gly	Gly	Arg	Leu	Thr	Arg	Gly	Arg		
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Val	Gln	Gly	Leu	Leu	Glu	Glu	Glu	Ala	Ala	Ala	Arg	Gly	Arg	Leu	Glu		
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Arg	Thr	Arg	Leu	Gly	Ala	Leu	Ala	Leu	Pro	Arg	Gly	Asp	Arg	Pro	Gly		
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Arg	Ala	Pro	Pro	Ala	Ala	Ser	Ala	Arg	Pro	Ser	Arg	Ser	Lys	Arg	Gly		
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Gly	Glu	Glu	Arg	Val	Leu	Glu	Lys	Glu	Glu	Glu	Glu	Asp	Asp	Asp	Glu		
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gat	gaa	gat	gaa	gaa	gat	gat	gtg	tca	gag	ggc	tct	gaa	gtg	ccc	gag	1056	
Asp	Glu	Asp	Glu	Glu	Asp	Asp	Val	Ser	Glu	Gly	Ser	Glu	Val	Pro	Glu		
			340					345					350				
agt	gac	cgt	cct	gca	ggc	gcc	cag	cac	cac	cag	ctt	aac	ggc	gag	cgg	1104	
Ser	Asp	Arg	Pro	Ala	Gly	Ala	Gln	His	His	Gln	Leu	Asn	Gly	Glu	Arg		
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gga	cct	cag	agt	gcc	aag	gag	agg	gtc	aag	gag	tgg	acc	ccc	tgc	gga	1152	
Gly	Pro	Gln	Ser	Ala	Lys	Glu	Arg	Val	Lys	Glu	Trp	Thr	Pro	Cys	Gly		
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Pro	His	Gln	Gly	Gln	Asp	Glu	Gly	Arg	Gly	Pro	Ala	Pro	Gly	Ser	Gly		
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Thr	Arg	Gln	Val	Phe	Ser	Met	Ala	Ala	Met	Asn	Lys	Glu	Gly	Gly	Thr		
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gct	tct	gtt	gcc	acc	ggg	cca	gac	tcc	ccg	tcc	ccc	gtg	cct	ttg	ccc	1296	
Ala	Ser	Val	Ala	Thr	Gly	Pro	Asp	Ser	Pro	Ser	Pro	Val	Pro	Leu	Pro		
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cca	ggc	aaa	cca	gcc	cta	cct	ggg	gcc	gac	ggg	acc	ccc	ttt	ggc	tgt	1344	
Pro	Gly	Lys	Pro	Ala	Leu	Pro	Gly	Ala	Asp	Gly	Thr	Pro	Phe	Gly	Cys		
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Pro	Pro	Gly	Arg	Lys	Glu	Lys	Pro	Ser	Asp	Pro	Val	Glu	Trp	Thr	Val		
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Thr	Ala	Phe	Gln	Glu	Gln	Glu	Ile	Asp	Gly	Lys	Ser	Leu	Leu	Leu	Met		
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Gln	Arg	Thr	Asp	Val	Leu	Thr	Gly	Leu	Ser	Ile	Arg	Leu	Gly	Pro	Ala		
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ctg	aaa	atc	tac	gag	cac	cac	atc	aag	gtg	ctt	cag	caa	ggc	cac	ttt	1584	
Leu	Lys	Ile	Tyr	Glu	His	His	Ile	Lys	Val	Leu	Gln	Gln	Gly	His	Phe		
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gag	gat	gat	gac	ccc	gat	ggc	ttc	tta	ggc							1614	
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Lys	Ser	Ser	Pro	Gly	Gln	Pro	Glu	Ala	Gly	Pro	Glu	Gly	Ala	Gln	Glu		
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cgg	ccc	agc	cag	gcg	gct	cct	gca	gta	gaa	gca	gaa	ggt	ccc	ggc	agc	144	
Arg	Pro	Ser	Gln	Ala	Ala	Pro	Ala	Val	Glu	Ala	Glu	Gly	Pro	Gly	Ser		
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agc	cag	gct	cct	cgg	aag	ccg	gag	ggt	gct	caa	gcc	aga	acg	gct	cag	192	
Ser	Gln	Ala	Pro	Arg	Lys	Pro	Glu	Gly	Ala	Gln	Ala	Arg	Thr	Ala	Gln		
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tct	ggg	gcc	ctt	cgt	gat	gtc	tct	gag	gag	ctg	agc	cgc	caa	ctg	gaa	240	
Ser	Gly	Ala	Leu	Arg	Asp	Val	Ser	Glu	Glu	Leu	Ser	Arg	Gln	Leu	Glu		
	65			70				75					80				
gac	ata	ctg	agc	aca	tac	tgt	gtg	gac	aat	aac	cag	ggg	ggc	ccc	ggc	288	
Asp	Ile	Leu	Ser	Thr	Tyr	Cys	Val	Asp	Asn	Asn	Gln	Gly	Gly	Pro	Gly		
				85				90					95				
gag	gat	ggg	gca	cag	ggt	gag	ccg	gct	gaa	ccc	gaa	gat	gca	gag	aag	336	
Glu	Asp	Gly	Ala	Gln	Gly	Glu	Pro	Ala	Glu	Pro	Glu	Asp	Ala	Glu	Lys		
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tcc	cgg	acc	tat	gtg	gca	agg	aat	ggg	gag	cct	gaa	cca	act	cca	gta	384	
Ser	Arg	Thr	Tyr	Val	Ala	Arg	Asn	Gly	Glu	Pro	Glu	Pro	Thr	Pro	Val		
			115				120					125					

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cag aca ttg aat act ctg agt acc cca gag gag aag ctg gct gct ctg Gln Thr Leu Asn Thr Leu Ser Thr Pro Glu Glu Lys Leu Ala Ala Leu 180 185 190	576
tgc aag aag tat gct gaa ctg ctg gag gag cac cgg aat tca cag aag Cys Lys Lys Tyr Ala Glu Leu Leu Glu Glu His Arg Asn Ser Gln Lys 195 200 205	624
cag atg aag ctc cta cag aaa aag cag agc cag ctg gtg caa gag aag Gln Met Lys Leu Leu Gln Lys Lys Gln Ser Gln Leu Val Gln Glu Lys 210 215 220	672
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ctt gag agc cta tgc cgt gag ctg cag cgg cac aac cgc tcc ctc aag Leu Glu Ser Leu Cys Arg Glu Leu Gln Arg His Asn Arg Ser Leu Lys 245 250 255	768
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gtg acc tcg cac ttc cag gtg aca ctg aat gac att cag ctg cag atg Val Thr Ser His Phe Gln Val Thr Leu Asn Asp Ile Gln Leu Gln Met 275 280 285	864
gaa cag cac aat gag cgc aac tcc aag ctg cgc caa gag aac atg gag Glu Gln His Asn Glu Arg Asn Ser Lys Leu Arg Gln Glu Asn Met Glu 290 295 300	912
ctg gct gag agg ctc aag aag ctg att gag cag tat gag ctg cgc gag Leu Ala Glu Arg Leu Lys Lys Leu Ile Glu Gln Tyr Glu Leu Arg Glu 305 310 315 320	960
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<213> Oryctolagus cuniculus
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 465 470 475 480
 Glu Tyr Phe Thr Glu Ala Gly Phe Pro Glu Gln Ala Thr Ala Phe Gln
 485 490 495
 Glu Gln Glu Ile Asp Gly Lys Ser Leu Leu Met Gln Arg Thr Asp
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 Val Leu Thr Gly Leu Ser Ile Arg Leu Gly Pro Ala Leu Lys Ile Tyr
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<213> *Oryctolagus cuniculus*

<220>

<221> CDS

<222> (246) ... (1895)

<400> 48

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 ggggaggggg gcgccgcgt gggagggagg cagcgcgac ggtgcagccg ggccggcg 240
 gaggc atg gcg ggg ccc ccg gcc cta ccc ccg ccg gag acg gcg gcg gcc 290
 Met Ala Gly Pro Pro Ala Leu Pro Pro Pro Glu Thr Ala Ala Ala
 1 5 10 15

gcc acc acg gcc gcg gcc gcc gcc tcg tcg tcc gcc gct tcc ccg cac 338
 Ala Thr Thr Ala Ala Ala Ala Ala Ser Ser Ser Ala Ala Ser Pro His
 20 25 30

tac caa gag tgg att ctg gac acc atc gac tcg ctg cgc tcg cgc aag 386
 Tyr Gln Glu Trp Ile Leu Asp Thr Ile Asp Ser Leu Arg Ser Arg Lys
 35 40 45

gcg cgg ccg gac ctg gag cgc atc tgc cgg atg gtg cgg cgg cgg cac 434
 Ala Arg Pro Asp Leu Glu Arg Ile Cys Arg Met Val Arg Arg Arg His
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 Gly Pro Glu Pro Glu Arg Thr Arg Ala Glu Leu Glu Lys Leu Ile Gln
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cag cgc gcc gtg ctc cgg gtc agc tac aag ggg agc atc tcg tac cgc 530
 Gln Arg Ala Val Leu Arg Val Ser Tyr Lys Gly Ser Ile Ser Tyr Arg
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aac gcg gcg cgc gtc cag ccg ccc cgg cgc gga gcc acc ccg ccg gcc 578
 Asn Ala Ala Arg Val Gln Pro Pro Arg Arg Gly Ala Thr Pro Pro Ala
 100 105 110

ccg ccg cgc gcc ccc cgc ggg ggc ccc gcc gcc gcc gcc gcc ccg ccg	626
Pro Pro Arg Ala Pro Arg Gly Gly Pro Ala Ala Ala Ala Ala Pro Pro	
115 120 125	
ccc acg ccc gcc ccg ccg ccg ccg ccc gcg ccc gtc gcc gcc gcc gcc	674
Pro Thr Pro Ala Pro Pro Pro Pro Pro Ala Pro Val Ala Ala Ala Ala	
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gcc ccg gcc cgg gcg ccc cgc gcg gcc gcc gcc gcc gct gcc gcc aca	722
Ala Pro Ala Arg Ala Pro Arg Ala Ala Ala Ala Ala Ala Ala Thr	
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Ala Pro Pro Ser Pro Gly Pro Ala Gln Pro Gly Pro Arg Ala Gln Arg	
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Ala Ala Pro Leu Ala Ala Pro Pro Pro Ala Pro Ala Ala Pro Pro Ala	
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Ala Ala Pro Pro Ala Gly Pro Arg Arg Ala Pro Pro Pro Ala Ala Ala	
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gtc gcc gcc cgg gag tcg ccg ctg ccg ccg cca cag ccg ccg gcg	914
Val Ala Ala Arg Glu Ser Pro Leu Pro Pro Pro Pro Gln Pro Pro Ala	
210 215 220	
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Pro Pro Gln Gln Gln Gln Gln Pro Pro Pro Pro Pro Pro Pro Gln Gln	
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Pro Gln Pro Pro Pro Glu Gly Gly Ala Ala Arg Ala Gly Gly Pro Ala	
240 245 250 255	
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Arg Pro Val Ser Leu Arg Glu Val Val Arg Tyr Leu Gly Gly Ser Ser	
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Glu Glu Ala Ala Ala Arg Gly Arg Leu Glu Arg Thr Arg Leu Gly Ala	
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Leu Ala Leu Pro Arg Gly Asp Arg Pro Gly Arg Ala Pro Pro Ala Ala	
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Ser Ala Arg Ala Ala Arg Asn Lys Arg Ala Gly Glu Glu Arg Val Leu	
320 325 330 335	

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Glu Lys Glu Glu Glu Glu Glu Glu Glu Glu Glu Asp Asp Glu Asp Asp Asp	340			345			350									
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Asp Asp Val Val Ser Glu Gly Ser Glu Val Pro Glu Ser Asp Arg Pro	355			360			365									
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Ala Gly Ala Ala Gln His His Gln Leu Asn Gly Gly Glu Arg Gly Pro Gln	370			375			380									
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Thr Ala Lys Glu Arg Ala Lys Glu Trp Ser Leu Cys Gly Pro His Pro	385			390			395									
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Val Phe Ser Met Ala Ala Leu Ser Lys Glu Gly Gly Ser Ala Ser Ser	420			425			430									
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Thr Thr Gly Pro Asp Ser Pro Ser Pro Val Pro Leu Pro Pro Gly Lys	435			440			445									
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Pro Ala Leu Pro Gly Ala Asp Gly Thr Pro Phe Gly Cys Pro Ala Gly	450			455			460									
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Arg Lys Glu Lys Pro Ala Asp Pro Val Glu Trp Thr Val Met Asp Val	465			470			475									
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Val Glu Tyr Phe Thr Glu Ala Gly Phe Pro Glu Gln Ala Thr Ala Phe	480			485			490			495						
cag gag cag gag atc gac ggc aag tcc ctg ctg ctc atg cag cgc acc																1778
Gln Glu Gln Glu Ile Asp Gly Lys Ser Leu Leu Leu Met Gln Arg Thr	500			505			510									
gat gtc ctc acc ggc ctg tcc atc cgc ctg ggg cca gcg ttg aaa atc																1826
Asp Val Leu Thr Gly Leu Ser Ile Arg Leu Gly Pro Ala Leu Lys Ile	515			520			525									
tat gag cac cat atc aag gtg ctg cag cag ggt cac ttc gag gac gat																1874
Tyr Glu His His Ile Lys Val Leu Gln Gln Gly His Phe Glu Asp Asp	530			535			540									
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Asp Pro Glu Gly Phe Leu Gly	545			550												
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<211> 12619

<212> DNA

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gcagttaatt	acattttaaca	cattaaacat	atagagcaaa	attctgagca	atcaaaataa	300
ttataccctt	gagcaatcga	ttattttaaat	ttcttttact	attcccttaa	gctgatttct	360
actctgggat	tctttcatag	ttctcaataa	agaaaataaa	aaatttccta	aataaggcaa	420
tacaaaagaa	tagaaatgta	agagaagaga	tatattagct	cttgaatccc	tgtttccatt	480
tgctgtcaat	agtgcctcta	atgttcgatt	ttctcttcaa	agaaaaatct	tgatttaaaa	540
ggaagaaaaa	gtacaatcac	ctttaacagc	taaagtatac	tgattagcat	ctactaaagt	600
tagcaaagac	tgaaactgaa	aaaaaattgt	aaaatcttta	ttctaagtta	tataacgcc	660
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aggtaaaaaa	ttttcctttg	ctgtcttaag	gcattcctaa	gagaattttt	accagtgtgt	780
gttcataaact	tgaatgttaa	tttaacaat	gttacttcta	tcacctaaat	gatatactta	840
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Variable	Mean	Standard Deviation	Minimum	Maximum
Age	34.5	10.2	22	55
Gender	0.5	0.5	0	1
Marital Status	0.7	0.5	0	1
Education	12.5	1.5	10	16
Income	3500	1500	1000	8000
Health Status	0.8	0.4	0	1
Exercise Frequency	2.5	1.5	0	5
Stress Level	4.5	1.5	1	7
Sleep Quality	3.5	1.5	1	6
Dietary Habits	2.5	1.5	0	5
Work-Life Balance	3.5	1.5	1	6
Overall Well-being	4.5	1.5	1	7

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